

LOADING PLATFORM WITH TWIN ROLLER CONVEYORS

RELATED APPLICATIONS

[0001] This invention is an improvement of the loading platform disclosed in the inventor's United States patent application serial number 10/607,700 filed June 27, 2003 for a Loading Platform Assembly.

BACKGROUND OF THE INVENTION

[0002] Warehouse type home improvement and builders supply stores use order picker lift trucks to move bulky merchandise between storage, point of display and customer loading. The hereinbefore identified loading platform assembly is a lift truck attachment designed to quickly and safely provide transport for wide entryway or patio door modules and large crates or appliances. When moving large boxes or crates onto or off of the roller conveyor, the workman must stand at one side of or at the end of the roller conveyor and these positions are awkward and not the most effective for applying force to move the merchandise on to or off of the roller conveyor. Since the roller braking mechanism is released during loading and unloading, it would be dangerous to stand on the roller conveyor during loading or unloading operations in attempting to gain a force applying advantage relative to the conveyed merchandise.

BRIEF DESCRIPTION OF THE INVENTION

[0003] The improved loading platform uses two parallel roller conveyors with a walkway there between. This permits the workman to place at least one foot on the walkway separating the conveyors when pushing a container or appliance off the loading platform or when placing such item onto the loading platform. Thus the workman can apply effective cargo moving force from a correct force applying position. This attachment reduces worker fatigue and injury potential and also increases efficiency through reduction of time required to load and unload

merchandise. The improved loading platform places the sockets for the legs of an upright brace in a side support beam for one of the roller conveyors so as to not obstruct the walkway between the roller conveyors.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] One embodiment of the invention is shown in the drawings in which:

Figure 1 shows the loading platform being used to transport a patio door unit;

Figure 2 shows the loading platform being used to transport a boxed appliance and

Figure 3 is a vertical section of a brace socket built into a roller support beam.

DETAILED DESCRIPTION OF THE INVENTION

[0005] Figure 1 illustrates a lift truck attachment in the form of a load transfer platform 11 which includes a horizontally disposed deck 12 having a pair of parallel hollow frame members 13, 14 on its underside presenting end openings 16, 17 adapted to receive a pair of forks of an order picker lift truck, not shown. A pair of parallel horizontal and roller conveyors 18, 19, spaced from one another in a front to rear directions are mounted on the deck 12 by roller support beams 21, 22, 23, 24 which rotatably support the shafts, not shown, of the rollers 26. The deck 12 has a front side 27, a rear side 28 and a laterally opposite sides 29, 30. The deck 12 includes a floor segment 31 at the backside of the roller conveyor 19 and a floor segment 32 between the roller conveyors 18, 19. Tall flat items such as the illustrated entrance door module 33 are placed on the roller conveyor 19 and leaned against an upright support brace 36 whose legs 37, 38 are mounted in sockets 39, 41 formed in the roller support beam 23, which are shown in greater detail in Figure 3. The brace 36 includes a hook segment 42 at its top for stabilizing tall items. A front guardrail 46 is provided at the front of the attachment 11 and sockets 51, 52

are shown at one side of the deck 12 for receiving legs 48, 49 of a side brace 47 shown in Figure 2.

[0006] Figure 2 shows the loading platform assembly 11 adjusted for transport of a boxed appliance 56. The upright brace 36 shown in Figure 1 has been removed in Figure 2 and the side guard 47 is shown detached from its sockets 51, 52. The floor segment 32 between the roller conveyors 19, 21 forms a pathway which permits the workman 57 to place one foot on one side of the conveyor 19 and the other foot on the other side of the conveyor 19. This positions the workman 57 in better position to efficiently apply force to the boxed appliance 56 when moving it onto or off of the loading platform 11. It should be understood that a releasable brake mechanism, like that shown in my hereinbefore identified U.S. patent application serial number 10/607,700, is provided to, brake the rollers 26 of the conveyors 18, 19 while the merchandise is being transported.

[0007] As shown in Figure 3 the socket 39 for the leg 37 of the brace 36 includes a U shaped segment 61 welded to the channel shaped beam 23. The socket 39 and the socket 41 are positioned laterally between the shafts 66 of adjacent rollers 26 which are journal in the webs of the channel shaped beams 23, 24.

[0008] The illustrated lift truck attachment provides an improved safe loading platform which is particularly useful in handling merchandise in a builders or homeowners supply stores of the warehouse type where merchandise is stocked in racks and also displayed at floor level.